

## **Stories in the Rocks**

Voyageurs National park is one of the few places in North America where you can see and touch rocks half the age of the Earth. The exposed rock you see all around you is the southern edge of the Canadian Shield, a gigantic dome of volcanic bedrock that forms the core of the continent.

This bedrock is from the birth of North America. Massive, explosive volcanoes deposited layer after layer of ash and lava, building up the landmass. Subsequent uplifting, folding, tremendous pressure, and superheating created igneous and metamorphic rock.

Eons of erosion wore down the volcanic mountain ranges. The ice ages brought glaciers, moving rivers of ice that scoured stayed for good, and their descendants away the younger rock layers. This action still live in the region.

exposed the deep roots of the ancient mountains-granite, migmatite, and biotite schist you see today. As the glaciers receded, torrents of meltwater filled lowlying areas, creating lakes. The geologic forces of uplift and erosion continue to shape the landscape.

The oldest rock in the park tells a recent human story. Fault zones in exposed 2.8 billion-year-old greenstone revealed gold embedded in quartz veins. The discovery sparked a short-lived mining rush in the 1890s. To accommodate the gold miners on Little American Island, Rainy Lake City sprung up on the shores of Black Bay and grew to a population of over 200. No one got rich, and the boomtown was abandoned by 1901. Many of the newcomers





The rocks of Voyageurs Bay (top), a popular destination on Sand Point Lake. A metal migmatite, greenstone, mica in quartz, granite, winch (above left) reand schist. Bedrock on mains from gold rush the shore of Browns days on Little American

Island, Above: Islands dot the lakes that dot the land in Voyageur country



The beautiful scenery that surrounds you causes others to move out. White-tailed is in fact a complex ecosystem. Since the retreat of the glaciers some 10,000 years ago, decomposed vegetation has covered the bedrock with less than a foot of topsoil, enough for the southern reaches of the boreal forest to take hold. Hardwoods like birch and aspen, and conifers like spruce and pine merge in a wondrous diversity of plant and animal life. This is a fragile, ever-changing world, affected by various human and natural forces.

One influence is modern industry—logging, mining, and commercial fishing. Fire suppression and timber harvesting have shaped the process of forest succession. The dense woods that blankets the land is really a patchwork quilt of secondgrowth boreal species. Industry has also affected water levels, and management efforts improve habitat for fish, birds, and other aquatic life.

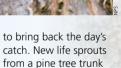
Climate change provides opportunity for new species to take hold. The same environment that welcomes new species

deer and neotropical birds are relative newcomers, while elk, traditional residents, have moved north. Nonnative species like the emerald ash borer compete for food and alter the ecosystem.

Not all change happens on a large scale. The hatching of an eaglet, the lichen that breaks down rock for the forest floor, and the fallen tree that forms a rich micro-habitat—all contribute in their own small way to the character of the







## **Fortunes from Fur**

one of North America's biggest industries. geurs was so important that the 1783 Trapping, trading, and travel routes were treaty ending the American Revolution well established by the time Europeans came to North America in search of wealth. "customary waterway" between Lake By the early 1700s, the heart of the fur trade had moved inland. The Oilbwe Indians were the gatekeepers of the rich fur lands north and west of the Great Lakes. Not only were they skilled traders, guides, interpreters, hunters, and trappers but they supplied fur posts and canoe brigades with food, birch-bark canoes, and other essentials.

The fur trade was a highly competitive commercial enterprise with a complex network of Indian alliances and specialized occupations: trappers, traders, clerks, and canoemen known as voyageurs. Expertly maneuvering the lightweight birch-bark canoes through the North Woods, the voyageurs transported trade goods between Montreal and the Canadian Northwest. They returned with "soft gold"—pelts of beaver and other animals, which were shipped to European markets.

For several generations the fur trade was 
The route of the adventuresome voyaset the international boundary as the Superior and Lake of the Woods.

> Today a 56-mile stretch of this water highway adjoins Voyageurs National Park, and is one of the reasons the park was established. The heyday of the fur trade is long gone, but the park still has elements of this illustrious past: place names like Grassy Portage and Cutover Island; stands of birch trees that provided materials for the essential canoes; and habitat for fur-bearing animals like beaver.





Beads (left) were a widespread medium of exchange between European traders and

American Indians. An Ojibwe family (top) and their home, ca. 1860. (Above) Artist Frances

Hopkins painted "Shooting the Rapids" in the 1860s.

